

ABSTRACT

A method and apparatus for controlling CMP (Chemical Mechanical Polishing) for semiconductor substrates includes an infrared camera for detecting and mapping in two dimensions the thermal image of the polishing pad during CMP. The thermal image of the polishing pad is then analyzed and used to control the process parameters of the CMP process. Analysis of the thermal image of the polishing pad allows real time endpoint detection of the CMP process and, also, real time adjustment of process parameters to improve the uniformity of removal of material across the semiconductor substrate.